

What is claimed is:

1. A modem apparatus comprising:

a sampling section that samples a reception signal;

5 a difference value calculation section that calculates a difference value between present sampling data and sampling data 1 data unit ahead;

an adder that cumulatively adds up the squares of difference values calculated for every sampling by going  
10 back to the time point ahead by the number of samples of a CP signal inserted into an initializing signal; and  
a position confirmation section that confirms the position of the CP signal using said addition value.

15 2. The modem apparatus according to claim 1, wherein said position confirmation section recognizes the boundary between the CP signal and signal body based on the sample number of the minimum value of addition values detected after reception of the initializing signal is started.

20

3. The modem apparatus according to claim 1, wherein when a minimum value of addition values is detected a plurality of times at intervals of the number of samples of said data unit, said position confirmation section  
25 recognizes the boundary between the CP signal and signal body based on the sample number of the minimum value.

4. The modem apparatus according to claim 1, wherein said

CPB11609.032001

position confirmation section recognizes the boundary between the CP signal and signal body based on the sample number with which addition values detected after reception of the initializing signal is started  
5 virtually become 0.

5. The modem apparatus according to claim 1, wherein said position confirmation section recognizes the boundary between the CP signal and signal body based on the sample  
10 number of the minimum value with which said addition values fall below a predetermined threshold.

6. An ADSL terminal side apparatus equipped with the modem apparatus according to claim 1.

15 7. An ADSL station side apparatus equipped with the modem apparatus according to claim 1.

8. A communication apparatus equipped with the modem  
20 apparatus according to claim 1.

9. A communication control method comprising:  
sampling a reception signal;  
calculating a difference between present sampling  
25 data and sampling data 1 data unit ahead;  
cumulatively adding up the squares of difference values calculated for every sampling by going back to the time point ahead by the number of samples of a CP

confirming the position of the CP signal from the sample number for which said addition value indicates a minimum value.

10. The communication control method according to claim 9, wherein the boundary between the CP signal and signal body is recognized based on the sample number of the minimum value of addition values detected after reception of the initializing signal is started.

11. The communication control method according to claim  
9, wherein when a minimum value of addition values is  
detected a plurality of times at intervals of the number  
15 of samples of said data unit, the boundary between the  
CP signal and signal body is recognized based on the  
sample number of the minimum value.